What is claimed is:

1. A safety device for vehicles that can be activated upon an impact of a vehicle against an obstacle, having:

a) first sensor means (101) for acquiring the vehicle impact and for outputting first sensor signals (102);

b) a control device (501) for outputting triggering signals (601, 602, 603, 604, 605, 606, 607) dependent on the first sensor signals (102); and

c) a restraint system (700) that is triggered dependent on the first sensor signals (102) for the protection of the vehicle occupants during the vehicle impact,

wherein the safety device further has:

d) second sensor means (201) for acquiring obstacles in the vicinity of the vehicle and for outputting second sensor signals (202);

e) third sensor means (301, 302, 303, 304, 305) for acquiring environmental influences on the second sensor means (201) and for outputting third sensor signals (401, 402, 403, 404, 405) dependent on the environmental influences,

the second sensor signals (202) output by the second sensor means (201) being used in the control device (501) for the decision concerning the triggering of the restraint system (700) after an evaluation of the third sensor signals (401, 402, 403, 404, 405) output by the third sensor means (301, 302, 303, 304, 305).

2. The device as recited in Claim 1,

wherein the first sensor means (101) are formed as acceleration sensors.

3. The device as recited in Claim 1,

wherein the second sensor means (201) are formed as ultrasound sensors.

4. The device as recited in Claim 1,

wherein the restraint system (700) has a multiplicity of restraint means (701, 702, 703, 704, 705, 706, 707).

5. The device as recited in Claim 4,

wherein the restraint means (701, 702, 703, 704, 705, 706, 707) include at least one of the

following means: a driver airbag (701), a passenger air bag (702), a knee airbag (703), a window airbag (704), a belt tightener (705), seat actuators (706), and a roll bar (707).

6. The device as recited in Claim 1,
wherein the first (101), second (201), and third sensor means (301, 302, 303, 304, 305) form a sensor system (100).

7. The device as recited in one of Claims 1 or 6,
wherein the third sensor means (301, 302, 303, 304, 305) include at least one of the following means: a rain sensor (301), a temperature sensor (302), an adhesive friction sensor or an additional system for determining the adhesive friction (303), a video sensor (304), and an intrinsic speed sensor (305).

8. A method for activating a safety device for vehicles upon an impact of a vehicle against an obstacle, comprising the steps:

a) acquisition of first sensing variables (801) by first sensor means (101) for recognizing the vehicle's impact against the obstacle, and outputting of first sensor signals (102) via the first sensor means (101);

b) determination by a control device (501) of triggering signals (601, 602, 603, 604, 605, 606, 607) dependent on the first sensor signals (102); and

c) triggering of a restraint system (700) dependent on the first sensor signals (102) for protecting the vehicle's occupants during the vehicle's impact against the obstacle,

wherein the method further comprises the following steps:

d) acquisition of second sensing variables (802) by second sensor means (201) for recognizing the vehicle's impact against the obstacle, and outputting of second sensor signals (202) from the second sensor means (201);

e) acquisition of third sensing variables (803, 804, 805, 806, 807) by third sensor means (301, 302, 303, 304, 305) for recognizing environmental influences on the second sensor means (201), and outputting of third sensor signals (401, 402, 403, 404, 405) from the third sensor means (301, 302, 303, 304, 305) dependent on the environmental influences,

the second sensor signals (202) output by the second sensor means (201) being used in the control device (501) for the decision concerning the triggering of the restraint system (700)

after an evaluation of the third sensor signals (401, 402, 403, 404, 405) output by the third sensor means (301, 302, 303, 304, 305).

9. The method as recited in Claim 8,
wherein the evaluation of the third sensor signals (401, 402, 403, 404, 405) output by the third sensor means (301, 302, 303, 304, 305) is carried out in the control device (501) by a processor unit (502).

10. The method as recited in Claim 9,
wherein the evaluation of the third sensor signals (401, 402, 403, 404, 405) output by the third sensor means (301, 302, 303, 304, 305) is carried out in the processor unit (502) by means of an evaluation algorithm (503).

11. The method as recited in Claim 10,
wherein the evaluation algorithm (503) for the evaluation of the third sensor signals (401, 402, 403, 404, 405) output by the third sensor means (301, 302, 303, 304, 305) is provided as embedded in the processor unit (502).

12. The method as recited in Claim 8,
wherein the third sensor means (301, 302, 303, 304, 305) include at least one video or brightness sensor with which an ambient brightness is acquired.

13. The method as recited in Claim 8,
wherein the third sensor means (301, 302, 303, 304, 305) include at least one temperature sensor (302) and at least one rain sensor (301), with which environmental influences are acquired.

14. The method as recited in Claim 8,
wherein the third sensor means (301, 302, 303, 304, 305) include at least one separate adhesive friction sensor or at least one additional system (303) for determining the adhesive friction from other signals present in the vehicle, with which an adhesive friction between the vehicle and a roadway is determined.

15. The method as recited in Claim 14,

wherein the adhesive friction between the vehicle and the roadway, determined with the at least one additional system for determining the adhesive friction or with the at least one adhesive friction sensor (303), is used to determine a dirtying and/or an icing of the second sensor means (201).

16. The method as recited in Claim 8,

wherein the restraint system (700) is switched to a fallback level if the evaluation of the third sensor signals (401, 402, 403, 404, 405), output by the third sensor means (301, 302, 303, 304, 305), in the control device (501) yields the result that the second sensor signals (202) output by the second sensor means (201) are falsified by environmental influences.

17. The method as recited in Claim 16,

wherein, when the restraint system control unit (501) is switched to a fallback level, restraint means (701, 702, 703, 704, 705, 706, 707) of the restraint system (700) are triggered without making use of the sensor signals 202 supplied by the second sensor means 201, on the basis of the first sensing variables (801) acquired by the first sensor means (101) for the recognition of the vehicle's impact against the obstacle.

18. The method as recited in Claim 8,

wherein using the second sensor signals (202) output by the second sensor means (201), a relative speed and the distance between the vehicle and the obstacle, the angle of impact, the time of impact, and the shape of the object are acquired.

19. The method as recited in Claim 10,

wherein a decision concerning a triggering of the restraint system (700) is carried out by means of the evaluation algorithm (503) executed in the processor unit (502).